News release

2003: Fifth warmest year in Britain

16 December 2003

Despite record-breaking temperatures this summer and a prolonged dry spell, 2003 has only been the fifth warmest in much of Britain since records began in 1659, according to figures released by the Met Office today. The mean Central England Temperature so far this year has been 10.82 °C, 1.09 °C above the long-term average. 1949, 1990, 1999 and 2002 were warmer with a CET between 1.1 and 1.2 °C above average. These comparisons are made with the Central England Temperature Series which covers the past 345 years.

The mean Central England Temperature this summer was 17.3 °C, making it the fourth warmest summer period on record. The record for the highest maximum temperature in the UK was broken on 10 August when the mercury hit 38.5 °C at Brogdale, near Faversham in Kent. The CET between March and August was also the warmest March to August on record, at 1.73 °C above the long-term average.

The England and Wales rainfall, up to the end of October 2003, was well below normal, with the period January to October being the eighth driest in a series that began in 1766. However, November 2003 was wet, with more than 60 mm in two days over much of South-east England between 21st and 23rd. The total November monthly rainfall for England and Wales was above average at 112 mm.

According to figures compiled by the Met Office and the University of East Anglia for the World Meteorological Organization (WMO), 2003 has been the third warmest year worldwide since records began in 1861, with the global mean surface temperature estimated to be 0.45 °C above the long-term average. All of the 10 warmest years have occurred since 1990, including each year since 1997.

Met Office climate scientist David Parker, said: "2003 has been another very warm year in Central England and six out of the seven warmest years since 1659 have occurred since 1990. Average global temperatures have risen by around 0.7 °C over the past 100 years and our research shows that the warming over the past 50 years is mainly due to human activities, such as the burning of fossil fuels."

In December 2002, the Met Office's Hadley Centre for Climate Prediction and Research predicted that the global (land and ocean) surface temperature for 2003 would be 0.55 °C above the 1961–1990 average, with a 95% confidence range of 0.41 °C to 0.69 °C. The observed temperature, 0.45 °C so far, has been near the lower end of the predicted range, because of the more rapid than expected disappearance of the weak 2002 El Niño event in the eastern tropical Pacific.

Averaged over land areas only, the temperature so far in 2003 is 0.64 °C above the 1961-1990 average, making it the third warmest year since records began in1856. 2003 was particularly warm in the Mediterranean area and North Africa, parts of the North Atlantic, and parts of the Indian Ocean. Much of central Europe had its hottest summer on record. Very few parts of the world had a cold year in 2003.

Phil Jones of the Climatic Research Unit, University of East Anglia, said: "The world has experienced another warm year with the four warmest years occurring since 1997. The summer over much of central Europe was the warmest ever recorded, not just in the instrumental record which goes back to 1781, but also in documentary-based extensions that go back to 1500."

The global prediction for 2004 is for 0.50 °C +/- 0.12 °C above the 1961-1990 average, with a 95% confidence range of 0.38 °C to 0.62 °C. This best estimate forecast would place 2004 as the second warmest year on record. There is about a 20% probability that 2004 will be as warm as or warmer than the warmest year on record, 1998 which was 0.55 °C.

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